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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,442	07/26/2000	Patrick Siu-ying Hung	CP0001US	8356

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ART UNIT	**PAPER NUMBER**
3622	

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/625,442	HUNG, PATRICK SIU-YING0	
	Examiner	Art Unit	
	Jeffrey D. Carlson	3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-9,11-13 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-9,11-13 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the paper(s) filed 1/28/05.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 2-9, 11-13, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankovitz et al (US5523794).**

Regarding claims 5, 8, Mankovitz et al teaches a portable coupon device (portable data coupon) that wirelessly receives data to be stored in the device. The data can then be processed and displayed by the user buttons. The device can display stored coupons as barcodes which are taught to be capable of being scanned from the display screen at a point of sate (POS) [fig 1a, 1b]. The device has a wireless receiver 16, processor, RAM and ROM memory, program and display [fig 2]. At least the display driver program [col 4 lines 19-25] manipulates the stored coupon data to render a barcode on the display. The Infrared (IR) wireless receiver 16 is taken to be a receiver configured to receive an electronic wireless transmission containing coupon information. Regarding the conversion between barcode formats, applicant acknowledges that there are a plurality of known barcode standards such as UPC, UCC/EAN-128, etc. Mankovitz et al teaches that the portable device includes programming to convert a

single coupon into several formats such as alphanumeric and barcode. The alphanumeric format is easily understandable by humans while the barcode is easily understandable by machines. It would have been obvious to one of ordinary skill at the time of the invention to have provided the ability for the device of Mankovitz et al to convert the coupon data between several human-readable languages (English, Spanish, etc.) as well as several machine-readable barcode symbologies/languages/formats (UPC, UCC/EAN-128, etc.) so that different human operators and different POS scanners requiring various barcode formats can process the coupons, for added flexibility and universality.

Regarding claims 11, 24, the "means for improving" [the scanning] is met by the inherent characteristics of Mankovitz et al's LCD display. Applicant acknowledges that LCD displays inherently provide a strobe rate and persistence level. Mankovitz et al's strobe rate and persistence level inherently are of sufficient magnitudes to make the invention work; the displayed barcodes can be scanned with a scanning device as stated by Mankovitz et al. Mankovitz et al's performance is taken to be an *improved* performance over an LCD having lower strobe rates and/or persistence levels. Applicant's claim 11 further defines the "means for improving" [scanning] by describing the persistence as "sufficient...for scanning." The same applies for Mankovitz et al; there are "sufficient" levels of inherent persistence and inherent strobe rate to enable scanning of the displayed barcodes.

Regarding claims 2-4, 9, 12, 13, Mankovitz et al teaches an LCD display 22 [col 4 lines 25-27]. Official Notice is taken that it is well known that the visual quality of a

barcode is related to the success in registering an error-free scan. Bushnell's Bar Code reference supports this and one of ordinary skill would recognize the same relationship between visual clarity and scanning success regardless of whether the barcode was printed or electronically displayed. It therefore would have been obvious to one of ordinary skill at the time of the invention to have provided the electronically displayed barcode of Mankovitz et al as a high quality barcode display so as to avoid errors. Official Notice is further taken that it is well known to provide electronic displays with various levels of visual clarity by manipulating pixel resolution and sizing as well through the use of anti-reflective contrast coatings. It would have been obvious to one of ordinary skill at the time of the invention to have provided any type of well known LCD display having sufficient pixel resolution and sizing as well as well known contrast features such as anti-reflective coatings in order to provide a display of sufficient clarity so that a displayed barcode could be capable of being scanned successfully. Further, the plurality of values for each of the various display characteristics disclosed as various operative examples suggests a lack of criticality regarding those characteristic values. One of ordinary skill would have been clearly motivated to routinely experiment with such display characteristics in the display design so that the barcodes were displayed with sufficient clarity so that they can be successfully scanned at the POS. It would have been obvious to one of ordinary skill at the time of the invention that higher quality displays would improve the scanning accuracy and one of ordinary skill would have found it obvious to have provided the highest display possible using the known techniques of pixel size, resolution and anti-reflective contrast coating so as to

maximize accuracy of scanning. Further, applicant states that displays of lower resolution/quality can still be used with success with scanning systems which require less resolution. The scan rate is dependant on the related tolerances/qualities not only of the barcode, but also on the scanning device. Scanning a displayed barcode is the intent of Mankovitz et al and it would have been obvious to one of ordinary skill at the time of the invention to have provided sufficient resolution/contrast/clarity for the particular requirements of the scanning hardware. Regarding claim 9, the "sufficiently high" strobe rate is met by Mankovitz et al similar to claim 11.

Regarding claim 6, Mankovitz et al does not specify the particular file structure for the stored data, yet it would have been obvious to one of ordinary skill at the time of the invention to have to have used any type of file structure, including related or hierarchical file structure as is well known. The particular file structure chosen lacks criticality with respect to the device operation.

Regarding claim 7, Mankovitz et al teaches that the source coupon data is encrypted to ensure that only authorized portable data coupons (portable coupon devices 10) can use the coupons/data [col 5 lines 36-40]. Applicant argues that the disclosure does not specify whether the decryption occurs in the controller or in the portable device. It would have been otherwise obvious to one of ordinary skill at the time of the invention to have provided the required decryption functionality in the portable coupon device so that pirated/hacked/copycat portable coupon devices lacking such decryption ability cannot be used with the system of Mankovitz et al, thus providing the authorization security described by Mankovitz et al.

4. **Claim 8 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Mankovitz et al in view of Gutman et al (US5221838).** Mankovitz et al teaches programming to convert between different coupon formats. Gutman et al teaches a portable electronic wallet that stores data received through scanning printed barcodes [abstract, col 5]. Gutman et al also acknowledges the plurality of barcode format/symbology standards. Gutman et al teaches that several different bar code formats can be supported by the device. It would have been obvious to one of ordinary skill at the time of the invention to have provided programming with Mankovitz et al to convert between various formats of displayed bar-coded coupons so as to increase flexibility and universality of the device.

Response to Arguments

5. Applicant argues that Mankovitz et al does not teach a receiver to receive an electronic wireless transmission containing coupon information. The IR receiver port 16 of Mankovitz et al is taken to provide such a feature. Even though the IR may be optically perceivable to a human (in the visible spectrum), the transmission is nonetheless taken as "electronic." Applicant's arguments that IR differs from and may be less desirable than RF are narrower than the present claim scope. Both RF and IR are in the electromagnetic spectrum and are taken to be "electronic" transmissions.

6. Applicant argues that Mankovitz et al does not teach a configurable portable electronic communication device. First, this language is presented in the preamble to introduce the apparatus. It is the body of the claim that sets forth structural features which define such a device; the limitations found in the claim body are all met by the cited art, therefore the cited art provides "a configurable portable electronic communication." Nonetheless, the apparatus of Mankovitz et al is clearly *configurable* so as to acquire, store and present various electronic coupons, is clearly *portable,* is clearly *electronic*, clearly *communicates with* the coupon transmitter, clearly *communicates* coupon information to the POS and is clearly a *device*. The cited art meets the plain and ordinary meaning of the argued phrase. Applicant argues that the specification defines such a device. Page 3 lines 24-26 and page 4 lines 14-13-21 provide examples of qualifying devices, but the open-ended "such as" language merely provides examples rather than an explicit definition with reasonable clarity, deliberateness and precision. See MPEP 2111.01, Teleflex Inc. v. Ficosa North America Corp., 63 USPQ2d 1374 (CA FC 2002), Rexnord Corp. v. Laitram Corp., 60 USPQ2d 1851 (CA FC 2001). Further, application provides examples of a wireless PDA or a "handheld computer." The device of Mankovitz et al is taken to be a handheld computer. Applicant's argument that the device of Mankovitz et al is a "specialized article" and cannot be a configurable device is not convincing.

7. Applicant argues that Mankovitz et al does not provide a means for improving scan rate. As stated above, Mankovitz et al provides "sufficient" strobe rate and

"sufficient" persistence so that the displayed coupons can be read with the scanning hardware. Claims 9 and 11 indicates that "sufficient" persistence and "sufficient" strobe rate provide such a "means." Applicant argues that normally devices do not include sufficiently high display quality so that barcodes can be scanned from them. Mankovitz and the Official Notice provide the motivation for a high quality display – so that the barcodes taught can be scanned accurately.

8. Applicant argues that Mankovitz et al does not teach the specific physical display properties and argues that Mankovitz et al does not "improve" the display. As stated above, one of ordinary skill would have been clearly motivated to routinely experiment with known display characteristics in the display design so that the barcodes were displayed with sufficient clarity so that they can be operatively scanned at the POS. Further, applicant discloses that displays of lower resolution/quality can still be used with success with scanning systems which require less resolution. If Mankovitz et al's barcodes and scanner equipment quality are anything other than the worst possible quality/tolerance, than the equipment and barcodes used by Mankovitz et al can be said to be of "improved quality." The means for which this improved quality is achieved is the sufficient persistence, strobing and contrast which enables the system to operate. Scanning a displayed barcode is the intent of Mankovitz et al and it would have been obvious to one of ordinary skill at the time of the invention to have provided sufficient resolution/contrast/clarity for the particular requirements of the scanning hardware to be used.

9. Applicant's argument regarding the Official Notice taken regarding the knowledge of how to provide a quality electronic display by manipulating pixel resolution, sizing and anti-reflective coating appears to only challenge the conclusion that it would have been obvious to have applied such technology to a barcode display. Applicant is not believed to have seasonably challenged the initial Official Notice regarding general knowledge that pixels and anti-reflective contrast coatings are ways to achieve a quality display. Nonetheless, Examiner had also previously included the Bushnell's Bar Code reference as supporting evidence.

10. Applicant argues that because Mankovitz et al teaches coupons for local dealers, that converting between barcode formats is not obvious and teaches away from such. Examiner disagrees. Even in a local environment, different retailers could support/employ/honor different barcode formats for an advertised product.

11. Applicant argues that the Examiner must provide evidence to support taking of Official Notice regarding devices which convert data into different formats. The Examiner is no longer relying on such taking of Official Notice.

12. Applicant argues that Gutman et al does not discuss coupons. While Gutman et al does not mention coupons, the device is for an electronic wallet that stores scannable product information. Gutman et al need not teach the entirety of the claim elements, as

the primary reference Mankovitz et al provides most of them. Gutman et al is used as evidence and motivation for the obviousness of converting between multiple supported barcode formats.

13. Applicant argues that the inventor is the only one identify the problem of scan errors when scanning a screen-displayed barcode. Examiner disagrees and points out that others recognize a relationship between the display quality of a barcode and its ability to be scanned with few errors. Further, one of ordinary skill would find it obvious to employ known techniques to display a high quality barcode so that scanning errors are reduced.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Carlson whose telephone number is 571-272-6716. The examiner can normally be reached on Mon-Fri 8:30-6p, (off on alternate Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571)272-6724. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey D. Carlson
Primary Examiner
Art Unit 3622

jdc